

REMARKS

Claims 1-11 are in the case. Claims 1 and 7 have been amended. Reconsideration of this application is respectfully requested in view of the following amendments and remarks.

Claims 1 and 7 have been amended. Claim 1 has been amended to delete “the” immediately preceding the feature “focused ultrasound waves” on line 6 of the claim. In addition, claim 1 was amended to include the phrase “from the laser” in the claim language reading “means for projecting a laser spot” such that the amended claim language now reads “means for projecting from the laser a laser spot.” Support for this amendment may be found at least in paragraph [0028] of the Specification. Claim 7 has been amended to include numbering of the features to facilitate comprehension of the claimed features. Support for this amendment may be found at least in paragraphs [0064] and [0070] of the Specification. No new matter is added by these amendments.

In light of the above amendments, each of the objections and rejections should be withdrawn and the claims should be allowed. However, further remarks are presented below to specifically address each objection and rejection.

Claim Objections

The Examiner has objected to Claim 1 because of her assertion of the following informalities: claim 1 recites the limitation “the focused ultrasound waves” on line 6. There is insufficient antecedent basis for this limitation in the claim. *See* Office Action, page 2, item 3. Claim 1 has been amended to delete “the” immediately preceding “focused ultrasound waves.” As amended, the claim objection is moot and Applicant respectfully requests the objection be withdrawn.

The Examiner has objected to Claim 7 because of her assertion of the following informalities:

the language in claim 7 makes it unclear if the applicant is saying wherein the means for projecting a laser spot comprises both the laser beam projection device and the means for assuring the correct horizontal and vertical alignment or if the applicant is saying the means for projecting a laser spot comprises the laser beam projection device, the

means for assuring the correct horizontal and vertical alignment being a separate and additional limitation to the apparatus of claim 2. *See* Office Action, page 2, item 4.

Claim 7 has been amended to include numbering of the features to facilitate comprehension of the claimed features. As amended, the claim objection is moot and Applicant respectfully requests the objection be withdrawn.

Rejection of Claims 1-11 under 35 U.S.C. § 103(a)

In the present Office Action, claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura (US 5,056,522) further in view of Hamano (US 4,764,006) further in view of Silverman (US 5,776,068). The rejection is respectfully traversed.

It is noted that the Examiner combines Silverman, Matsumura, and Hamano as the basis of all 103 rejections. However, the combination of Silverman, Matsumura, and Hamano does not support the section 103(a) rejection, since the respective cited references teach systems which work on different principles and effectively teach away from each other.

Specifically, Silverman teaches the examination of the anterior portion of a patient's eye. A target is displayed for the patient to view while the anterior portion of the eye is examined by use of an ultrasound probe. The ultrasound probe is not placed on the eye. Furthermore, the patient is instructed to follow the target as it moves to allow the probe to sufficiently obtain ultrasound echoes from the entire anterior portion of the patient's eye. Thus, in Silverman, the probe does not come into contact with the eye, the eye moves to follow a moving target, and the purpose of the invention is to measure the anterior portion of the patent's eye. The ultrasound probe does not move and is fixed in place during the entire procedure carried out by Silverman. There is no way to use Silverman to align, for each patient, the ultrasound probe with the visual axis of the eye being examined. This is quite apparent from Fig. 1 of Silverman.

In contrast, Matsumura discloses an apparatus for measuring the axial length of the eye and a calculator for correcting inaccurate measurements due to the depression of the cornea while the measuring device (ultrasound probe) is in contact with the eye. As noted, and in contrast to Silverman, Matsumura teaches placing the probe on the eye and measuring the axial length of the

eye. Silverman discloses allowing the eye to move and measuring the anterior portion of the eye.

Similarly, Hamano discloses an ophthalmic measuring apparatus for effecting optical measurement of the shape of the cornea and measuring the lengths of various portions of the eye, wherein the apparatus comprises an ultrasonic detector adapted to be positioned on the cornea of an eye to be examined. As noted, and in contrast to Silverman, Hamano teaches placing a light transmitting member in contact with the cornea.

It would be illogical for a person of ordinary skill in the art at the time of the present invention to combine Matsumura and Hamano with Silverman, because the teachings of Matsumura and Hamano would conflict with the teachings of Silverman. For example, if the probe of Silverman was placed on the eye (as in Matsumura and Hamano), the cornea would deform from the pressure and the measurement of the anterior portion of the eye would be incorrect. Also, if the probe of Silverman was placed on the eye as in Matsumura and Hamano, the eye could not move in order to follow the tracking device (as taught in Silverman), or would at least be at severe risk of damage during movement. Thus, the combination of these three references would be illogical.

However, assuming, *arguendo*, that the cited references are indeed combinable, the cited references in combination still fail to teach or suggest all of the features of amended claim 1. The Federal Circuit has established:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.

Ex Parte Paul Joseph Datta, Robert Eugene Vogt, Thomas Walter Odorzynski, Cassandra Elizabeth Morris, and Jennifer Elizabeth Pozniak, Appellants, Bd.Pat.App. & Interf. (Sep 24, 2008) (NO. APL 2008-4586, APP 10/017,894, TECHNOLOGY CENTER 3700) citing (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Amended claim 1 reads in part:

“...means for projecting from the laser a laser spot onto a grid so that the projected laser beam axis is substantially coaxial with the interrogating axis of said ultrasound measuring device....”

The Examiner asserts that Silverman “discloses a means for projecting a laser spot onto a grid by

the use of the camera mount, beamsplitter and fixation target (fig. 1 elements 38, 34, and 30 respectively). See Office Action, pages 3-4, item 7. However, the Examiner has failed to establish how the combined references teach or suggest the claim feature that “the projected laser beam axis is substantially coaxial with the interrogating axis of said ultrasound measuring device.” In Silverman, the beamsplitter, which Examiner equates to the laser beam, is not substantially coaxial with the interrogating axis of the ultrasound measuring device, but is instead only momentarily parallel to the ultrasound measuring device as shown in Fig. 1 when the moving fixation target display is directly in front of the patient’s eye, and even then it is offset completely on the other side of the patient’s midline as shown in Fig. 1. Neither Hamano nor Matsumura disclose this coaxial attribute, and therefore fail to make up for the deficiency of the Silverman disclosure in that regard.

In view of all of the foregoing, it is clear that the rejections under section 103(a) fail to establish a *prima facie* case of obviousness, especially in light of the present amendments to the claims, because the cited references actually teach away from their combination, and even when combined, they fail to teach or suggest the presently claimed invention to a person of ordinary skill in the art without the benefit of the teachings of the present disclosure. These rejections therefore should be reconsidered and withdrawn.

In light of the foregoing amendments and remarks, the case is believed to be in condition for allowance. Prompt notification to this effect would be sincerely appreciated. If any matters remain that require further consideration, the Examiner is requested to telephone the undersigned at the number given below so that such matters may be discussed, and if possible, promptly resolved.

Respectfully submitted,
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